



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
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KING OF PRUSSIA, PA 19406-1415

February 8, 2011

Mr. Robert Smith
Site Vice President
Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360-5508

SUBJECT: PILGRIM NUCLEAR POWER STATION - NRC INTEGRATED INSPECTION
REPORT 05000293/2010005

Dear Mr. Smith:

On December 31, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Pilgrim Nuclear Power Station (PNPS). The enclosed inspection report documents the results, which were discussed on January 5, 2011, with you and other members of your staff.

The inspection examined activities performed under your license as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

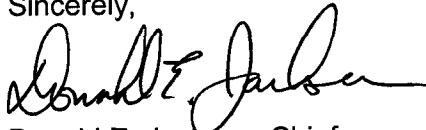
This report documents three NRC-identified findings of very low safety significance (Green). All of these findings were determined to be violations of NRC requirements. Additionally, a licensee-identified violation which was determined to be of very low safety significance is listed in this report. However, because of the very low safety significance and because they are entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCV) consistent with Section 2.3.2.a of the NRC's Enforcement Policy. If you contest any NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Senior Resident Inspector at PNPS. In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I, and the NRC Senior Resident Inspector at PNPS. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

R. Smith

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Sincerely,

A handwritten signature in black ink, appearing to read "Donald E. Jackson", written in a cursive style.

Donald E. Jackson, Chief
Projects Branch 5
Division of Reactor Projects

Docket No. 50-293
License No. DPR-35

Enclosure: Inspection Report 05000293/2010005
w/Attachment: Supplemental Information

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R. Smith

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Sincerely,

/RA/

Donald E. Jackson, Chief
Projects Branch 5
Division of Reactor Projects

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w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 50-293

License No: DPR-35

Report No: 05000293/2010005

Licensee: Entergy Nuclear Operations, Inc.

Facility: Pilgrim Nuclear Power Station (PNPS)

Location: 600 Rocky Hill Road
Plymouth, MA 02360

Inspection Period: October 1, 2010 through December 31, 2010

Inspectors: M. Schneider, Senior Resident Inspector, Division of Reactor Projects (DRP)
B. Smith, Resident Inspector, DRP
R. Rolph, Health Physicist, Division of Reactor Safety (DRS)
R. Latta, Senior Reactor Inspector, Region IV
T. Burns, Senior Reactor Inspector, Region I
D. Jones, Senior Reactor Inspector, Region III
P. Prescott, Senior Quality and Vendor Program Engineer, Office of Nuclear Reactor Regulation (NRR)

Approved By: Donald E. Jackson, Chief
Projects Branch 5
Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000293/2010005; 10/01/2010-12/31/2010; Pilgrim Nuclear Power Station; Maintenance Risk Assessments and Emergent Work Control; Identification and Resolution of Problems.

The report covered a three-month period of inspection by the resident and regional-based inspectors. Three Green NRC-identified non-cited violations (NCV) and one licensee-identified violation of very low safety significance (Green) were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process." Cross-cutting aspects associated with findings are determined using IMC 0310, "Components Within the Cross-Cutting Areas." The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Mitigating Systems

Green. The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65 paragraph (a)(4) for Entergy's failure to correctly assess and manage a Yellow risk condition for planned testing of the High Pressure Coolant Injection (HPCI) system from the Alternate Shutdown Panel (ASP). Specifically, Entergy considered HPCI available by crediting multiple manual actions to restore the automatic function. However, these actions were not "few" or "simple" and would not have restored the HPCI automatic function in a timeframe consistent with guidance discussed in NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." In addition, HPCI's automatic function would not have been restored in a timeframe consistent with Pilgrim's Updated Final Safety Analysis Report (UFSAR), Section 6.4.1, which specifies 90 seconds for HPCI to reach its required design flow rate. Corrective actions included issuing a standing order to alert Operators of the specific requirements to maintain a system "available" during maintenance and testing. Corrective actions planned include revising Entergy's Risk Assessment Procedure to verify systems credited as "available" have clear and simple direction to restore automatic functional status during maintenance and testing.

This finding was determined to be more than minor because Entergy's elevated plant risk would put the plant into a higher risk category and require additional risk management actions, namely protecting the Reactor Core Isolation Cooling system. In addition, the finding affected the Human Performance attribute of the Mitigating System's cornerstone objective to ensure the availability of systems to respond to initiating events and prevent undesirable consequences. The inspectors performed an evaluation in accordance with IMC 0609, "Significance Determination Process," Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," because the finding related to Entergy's assessment and management of risk. The finding was determined to be of very low safety significance (Green) because the Incremental Core Damage Probability Deficit for the unavailability of HPCI for the duration of the activity was less than $1.0E-6$ per year (approximately $2.6E-9$ per year). The inspectors determined that this finding had a cross-cutting aspect in the Human Performance cross-cutting area, Work

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Control component, because Entergy did not correctly plan and coordinate work activities by incorporating appropriate risk insights [H.3(a)]. (Section 1R13)

Green. The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion X, "Inspection," for the failure to ensure that Quality Control verification inspections were consistently included and correctly specified in quality-affecting procedures and work instructions for construction-like work activities as required by the Quality Assurance Program. Entergy initiated prompt fleet-wide corrective actions to ensure proper work order evaluation and proper inclusion of Quality Control verification inspections. This issue was entered into the corrective action program as condition reports (CR) CR-HQN 2009-01184 and CR-HQN-2010-0013.

The failure to ensure that adequate Quality Control verification inspections were included in quality-affecting procedures and work instructions as required by the Quality Assurance Program was a performance deficiency. This issue was more than minor because, if left uncorrected, it could lead to a more significant safety concern; in that, the failure to check quality attributes could involve an actual impact to plant equipment. This issue affected the Design Control attribute of the Mitigating Systems cornerstone because missed or improper quality control inspections during plant modifications could impact the availability, reliability, and capability of systems needed to respond to initiating events. This performance deficiency was determined to be of very low safety significance (Green), since it was confirmed to involve a qualification deficiency that did not result in a loss of operability or functionality. The inspectors determined that this issue had a cross-cutting aspect in the Human Performance cross-cutting area, Decision-Making component, because the licensee did not have an effective systematic process for obtaining interdisciplinary reviews of proposed work instructions to determine whether Quality Control verification inspections were appropriate [H.1(a)]. (Section 4OA2)

Green. The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion II, "Quality Assurance Program," for the failure to implement the experience and qualification requirements of the Quality Assurance Program. As a result, the licensee failed to ensure that an individual assigned to the position of Quality Assurance Manager met the qualification and experience requirements of ANSI/ANS 3.1-1978 as required by the Quality Assurance Program. Specifically, the individual assigned to be the responsible person for the licensee's overall implementation of the Quality Assurance Program did not have at least one year of nuclear plant experience in the overall implementation of the Quality Assurance Program within the quality assurance organization prior to assuming those responsibilities. This issue was entered into the corrective action program as CR-HQN-2010-00386.

The failure to ensure that an individual assigned to the position of Quality Assurance Manager met the qualification and experience requirements of ANSI/ANS 3.1-1978 as required by the Quality Assurance Program was a performance deficiency. This issue was more than minor because, if left uncorrected, it could create a more significant safety concern. The failure to have a fully qualified individual providing overall oversight to the Quality Assurance Program had the potential to affect all cornerstones, but the inspectors determined that this finding will be tracked under the Mitigating Systems cornerstone as the area most likely to be impacted. The issue was not suitable for quantitative

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assessment using existing NRC Significance Determination Process (SDP) guidance, so it was determined to be of very low safety significance (Green) using NRC Inspection Manual Chapter (IMC) 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria." The inspectors determined that there was no cross-cutting aspect associated with this finding because this issue was not indicative of current performance as it occurred more than three years ago. (Section 4OA2)

Other Findings

A violation of very low safety significance, which was identified by the licensee, has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. The violation and corrective action tracking numbers are listed in Section 4OA7.

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REPORT DETAILS

Summary of Plant Status

Pilgrim Nuclear Power Station (PNPS) began the inspection period operating at 100 percent power. On October 13, 2010, operators reduced power to 50 percent to perform a thermal backwash on the main condenser. Pilgrim returned to 100 percent power on October 14, 2010. On November 11, 2010, operators reduced power to 45 percent for a backwash of the main condenser. Pilgrim returned to 100 percent power later the same day. On November 30, 2010, operators reduced power to 70 percent to perform control rod blade-channel interference testing and returned to 100 percent power later the same day. On December 22, 2010, operators reduced power to 50 percent to perform a condenser backwash and returned to 100 percent power on December 23, 2010. On December 27, 2010, operators reduced power to 50 percent in response to high screen wash differential pressure due to a significant coastal storm. Pilgrim returned to 100 percent power later the same day. Operators maintained the reactor at or near 100 percent power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment (71111.04)

Partial System Walkdowns (71111.04Q)

a. Inspection Scope (3 samples)

The inspectors performed three partial system walkdowns during this inspection period. The inspectors performed a partial walkdown of each system to determine if the critical portions of the selected systems were correctly aligned in accordance with procedures, and to identify any discrepancies that may have had an effect on operability. The walkdowns included selected control switch position verifications, valve position checks, and verification of electrical power to critical components. In addition, the inspectors evaluated other elements, such as material condition, housekeeping, and component labeling. The documents reviewed are in the Attachment. The following systems were reviewed based on their risk significance for the given plant configuration:

- 'B' Emergency Diesel Generator (EDG) with 'A' Residual Heat Removal out of service;
- 'A' EDG with 'B' Core Spray and 345KV Line 342 out of service; and
- 'B' Reactor Protection System Train while on backup power supply from B-10.

b. Findings

No findings were identified.

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1R05 Fire Protection (71111.05)Fire Protection - Tours (71111.05Q)a. Inspection Scope (5 samples)

The inspectors performed walkdowns of five fire protection areas during the inspection period. The inspectors reviewed Entergy's fire protection program to determine the fire protection design features, fire area boundaries, and combustible loading requirements for the selected areas. The inspectors walked down these areas to assess Entergy's control of transient combustible material and ignition sources. In addition, the inspectors evaluated the material condition and operational status of fire detection and suppression capabilities and fire barriers. The inspectors then compared the existing condition of the areas to the fire protection program requirements to determine whether all program requirements were met. The documents reviewed during this inspection are listed in the Attachment. The fire protection areas reviewed were:

- Fire Area 1.10, Fire Zone 4.1, 'B' Emergency Diesel Generator Room;
- Fire Area 1.9, Fire Zone 1.9A, 'A' Residual Heat Removal Pipe Room;
- Fire Area 1.9, Fire Zone 3.5, Vital Motor Generator Set Room;
- Fire Area 1.10, Fire Zone 2.1, 'B' Switchgear and Load Center Room; and
- Fire Area 1.10, Fire Zone 2.11A, Turbine Deck-West End.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)Resident Inspector Quarterly Review (71111.11Q)a. Inspection Scope (1 sample)

The inspectors observed licensed operator performance during an annual licensed operator requalification exam involving two evaluated scenarios on October 26, 2010. The inspectors observed crew response to a Station Blackout scenario complicated by a Loss of Coolant Accident. In addition, the inspectors observed a fuel failure scenario with an unisolable leak from the Reactor Water Cleanup system. The inspectors assessed the licensed operators' performance to determine if the training evaluators adequately addressed observed deficiencies. The inspectors reviewed the applicable training objectives from the scenarios to determine if they had been achieved. In addition, the inspectors performed a simulator fidelity review to determine if the arrangement of the simulator instrumentation, controls, and tagging closely paralleled that of the control room. The documents reviewed during this inspection are listed in the Attachment.

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b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q)Inspection Scope (2 samples)

The inspectors reviewed the two samples listed below for items such as: (1) appropriate work practices; (2) identifying and addressing common cause failures; (3) scoping in accordance with 10 CFR 50.65 paragraph (b) of the Maintenance Rule; (4) characterizing reliability issues for performance; (5) trending key parameters for condition monitoring; (6) charging unavailability for performance; (7) classification and reclassification in accordance with 10 CFR 50.65 paragraph (a)(1) or (a)(2); and (8) appropriateness of performance criteria for structures, systems, and components (SSCs)/functions classified as paragraph (a)(2) and/or appropriateness and adequacy of goals and corrective actions for SSCs/functions classified as paragraph (a)(1). The documents reviewed during this inspection are listed in the Attachment. Items reviewed included the following:

- Post Accident Sampling System Maintenance Rule (a)(1) Action Plan; and
- Condition Monitoring of Building and Structures.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)a. Inspection Scope (3 samples)

The inspectors evaluated three maintenance risk assessments for planned testing and maintenance activities. The inspectors reviewed maintenance risk evaluations, work schedules, and control room logs to determine if concurrent maintenance or surveillance activities adversely affected the plant risk already incurred with out-of-service components. The inspectors evaluated whether Entergy took the necessary steps to control work activities, minimized the probability of initiating events, and maintained the functional capability of mitigating systems. The inspectors assessed Entergy's risk management actions during plant walkdowns. The documents reviewed during this inspection are listed in the Attachment. The inspectors reviewed the conduct and adequacy of maintenance risk assessments for the following maintenance and testing activities:

- Green Risk for Testing and Maintenance on the 'B' Core Spray System, Line 342, the Diesel Fire Pump, and the Diesel Air Compressor;
- Yellow Risk for 'B' Residual Heat Removal Maintenance; and
- Green Risk for High Pressure Coolant Injection System Testing from the Alternate Shutdown Panel.

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b. Findings

Introduction: The inspectors identified a Green NCV of 10 CFR 50.65 paragraph (a)(4) for Entergy's failure to correctly assess and manage a Yellow risk condition during testing of the HPCI system from the Alternate Shutdown Panel (ASP). Specifically, Entergy considered HPCI available by crediting multiple manual actions to restore the automatic function. However, these actions were not "few" or "simple" and would not have restored the HPCI automatic function in a timeframe consistent with guidance discussed in NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," nor with Pilgrim's UFSAR.

Description: On November 15, 2010, Entergy performed surveillance testing of HPCI from the ASP. During this test, operators place a control switch on the ASP from "remote" to "local" which removes the automatic function of HPCI to mitigate a Loss of Coolant Accident. Entergy's Equipment Out of Service (EOOS) risk assessment model calculates the risk with HPCI out of service to be "Yellow." However, Entergy credited a local operator and manual actions to restore the HPCI automatic function during the test and thereby considered HPCI available and managed the plant risk as "Green."

NUMARC 93-01, Section 11, Appendix B, Revision 2, dated 2/22/2000, discusses manual restoration actions to maintain a system available during the conduct of testing which removes the automatic function. NUMARC 93-01, discusses that, "Restoration actions must be contained in a written procedure, must be uncomplicated (a single action or a few simple actions), and must not require diagnosis or repair." In order to restore HPCI, Operations briefed restoration steps in procedure 8.5.4.6, "HPCI Pump and Valve Operability from Alternate Shutdown Panel." The briefing sheet included, in part, "performing Section 8.2, starting at step-6, and then section 8.4 for system restoration." Approximately 25 steps were required to be performed to restore HPCI's automatic function. Entergy did not recognize that the number of steps required to restore HPCI's automatic function would not meet a timeframe consistent with the guidelines in NUMARC 93-01 to assure the automatic function was maintained. In addition, HPCI's automatic function would not have been restored in a timeframe consistent with Pilgrim's UFSAR Section 6.4.1, which specifies a 90 second timeframe for HPCI to reach its required design flow rate. As a result, Entergy did not recognize that risk should have been Yellow and that risk management actions, including protecting the Reactor Core Isolation Cooling System (RCIC) system, would be required.

Analysis: The performance deficiency associated with this finding is that Entergy performed an incorrect risk assessment for HPCI testing from the ASP and, as a result, did not take all necessary risk management actions as specified by 10 CFR 50.65 paragraph (a)(4). Traditional Enforcement did not apply as the issue did not have actual or potential safety consequence, had no willful aspects, nor did it impact the NRC's ability to perform its regulatory function.

A review of NRC Inspection Manual Chapter (IMC) 0612, Appendix E, "Minor Examples," identified that Section 7, "Maintenance Rule," Example 'e', reflected a similar more than minor example. Specifically, this finding was determined to be more than minor because Entergy's elevated plant risk would put the plant into a higher risk category and require

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additional risk management actions, namely protecting the RCIC system. In addition, the finding affected the Human Performance attribute of the Mitigating System's cornerstone objective to ensure the availability of systems to respond to initiating events and prevent undesirable consequences. The inspectors performed an evaluation in accordance with IMC 0609, "Significance Determination Process," Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," because the finding related to Entergy's assessment and management of risk. The finding was determined to be of very low safety significance (Green) because the Incremental Core Damage Probability Deficit for the unavailability of HPCI for the duration of the activity was less than 1.0 E-6 per year (approximately 2.6 E-9 per year).

The inspectors determined that this finding had a cross-cutting aspect in the Human Performance cross-cutting area, Work Control component, because Entergy did not plan and coordinate work activities by incorporating appropriate risk insights. [H.3(a)]

Enforcement: 10 CFR 50.65 paragraph (a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," states, in part, "...the licensee shall manage the increase in risk that may result from the proposed maintenance activities." Contrary to the above, on November 15, 2010, Entergy incorrectly managed the increase in risk from testing HPCI from the ASP. As a result, Entergy did not recognize a Yellow risk condition and thus did not take all appropriate risk management actions. Corrective actions included issuing a standing order to alert Operators of the specific requirements to maintain a system "available" during maintenance and testing. Corrective actions planned include revising Entergy's Risk Assessment Procedure to verify systems credited as "available" have clear and simple direction to restore automatic functional status during maintenance and testing. Because of the very low safety significance and because it has been entered into the corrective action program (CR-PNP-2010-4267), the NRC is treating this as an NCV, consistent with Section 2.3.2 a of the NRC's Enforcement Policy. **(NCV 05000293/2010005-01, Failure to Manage a Yellow Risk Condition During HPCI Testing from the Alternate Shutdown Panel.)**

1R15 Operability Evaluations (71111.15)

a. Inspection Scope (5 samples)

The inspectors reviewed five operability determinations associated with degraded or non-conforming conditions to determine if the operability determination was justified and if the mitigating systems or barriers remained available such that no unrecognized increase in risk had occurred. The inspectors also reviewed compensatory measures to determine if the compensatory measures were in place and were appropriately controlled. The inspectors reviewed Entergy's performance against related Technical Specifications and UFSAR requirements. The documents reviewed during this inspection are listed in the Attachment. The inspectors reviewed the following degraded or non-conforming conditions:

- Transfer Switch Y-10 acting sluggishly when transferring back to normal power supply;
- 'A' Emergency Diesel Generator jacket water temperature switch found defective;
- Degradation of Main Breakwater Structure;

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- Residual Heat Removal / Fuel Pool Cooling supports degraded; and
- Drain Valve on the 'D' Moisture Separator Drain Tank not maintaining normal level.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope (5 samples)

The inspectors reviewed five samples of post-maintenance tests during this inspection period. The inspectors reviewed these activities to determine whether the post-maintenance test adequately demonstrated that the safety-related function of the equipment was satisfied given the scope of the work performed, and that operability of the system was restored. In addition, the inspectors evaluated the applicable test acceptance criteria to verify consistency with the associated design and licensing bases, as well as Technical Specification requirements. The inspectors also evaluated whether conditions adverse to quality were entered into the corrective action program for resolution. The documents reviewed during this inspection are listed in the Attachment. The following maintenance activities and their post-maintenance tests were evaluated:

- Reactor Core Isolation Cooling maintenance for valves MO-1301-26, MO-1301-22, and MO-1301-25;
- Line 342 Maintenance;
- Troubleshooting 'B' Reactor Protection System Spurious Half-Scrams;
- 'A' Emergency Diesel Generator Start Push Button Replacement and Other Preventative Maintenance; and
- Replace Main Stack Dilution Fan 'B' (VSF-206B).

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope (5 samples)

The inspectors witnessed five surveillance activities and/or reviewed test data to determine whether the testing adequately demonstrated equipment operational readiness and the ability to perform the intended safety-related functions. The inspectors reviewed selected prerequisites and precautions to determine if they were met, and if the tests were performed in accordance with the procedural steps. Additionally, the inspectors evaluated the applicable test acceptance criteria for consistency with associated design bases, licensing bases, and Technical Specification requirements. The inspectors also evaluated whether conditions adverse to quality were entered into the corrective action program for

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resolution. The documents reviewed during this inspection are listed in the Attachment. The following surveillance tests were evaluated:

- 'A' Emergency Diesel Generator Operability;
- 'B' and 'D' Residual Heat Removal Pump Operability (IST);
- High Pressure Coolant Injection (HPCI) Quarterly Operability Test (IST);
- Control Blade Interference Testing; and
- 'B' Core Spray Pump Operability and Flow Rate Test (IST).

b. Findings

No findings were identified.

2. **RADIATION SAFETY (RS)**

Cornerstone: Occupational/Public Radiation Safety

2RS01 Radiological Hazard Assessment and Exposure Controls (71124.01)

a. Inspection Scope (1 Sample)

During the period October 18 through October 21, 2010, the inspectors conducted the following activities to verify that Pilgrim properly assessed the radiological hazards in the workplace and implemented appropriate radiation monitoring and exposure controls during routine operations. Implementation of these controls was reviewed against the criteria contained in 10 CFR 20, "Standards for Protection Against Radiation," relevant Technical Specifications, and the licensee's procedures. This inspection activity represents the completion of one sample relative to this inspection area; completing the annual inspection requirement.

Radiological Hazard Assessment

- The inspectors verified air samples were collected and analyzed in accordance with Pilgrim procedures.

Instructions to Workers

- The inspectors verified that workers would be informed of changing conditions by the radiological controls technician providing continuous job coverage.

Contamination and Radioactive Material Control

- The inspectors observed the Radiological Control Area exit at the "green line" to verify the surveying and release of material was in accordance with plant procedures. The inspectors verified the procedures are sufficient to control the spread of contamination and prevent unintended release of licensed material from the site.

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- The inspectors verified that Pilgrim has not established a de facto "release limit" by altering the instrument's typical sensitivity through altering energy discrimination or placing instruments in high background radiation areas.

Radiological Hazards Control and Work Coverage

- There were no opportunities to observe work in areas with significant dose gradients during this inspection period.
- Pilgrim has no posted airborne radiation areas. Therefore, the inspectors had no opportunities to observe work in such areas and could not evaluate controls for those areas.
- The inspectors verified the physical and programmatic controls for highly activated materials stored in the spent fuel pool to ensure that appropriate controls are in place to preclude the inadvertent removal of these materials from the pool.
- The inspectors verified the posting and physical controls for the Traversing In-Core Probe (TIP) room were appropriate when TIP movement was in progress. This area was a very high radiation area (VHRA) at the time of the observation.

Risk-Significant High Radiation Area and Very High Radiation Area Controls

- The inspectors discussed the VHRA controls and procedures with the Radiation Protection Manager (RPM).
- The inspectors discussed the controls in place for entry into the TIP room with a Radiation Protection (RP) supervisor. The inspector verified that communication with the RP group is required prior to moving probes. The RP supervisor is on a tag out that must be cleared prior to probe movement.
- The inspectors verified that an individual is not able to gain unauthorized access to the TIP room during probe movement.

b. Findings

No findings were identified.

2RS02 Occupational ALARA Planning and Controls (71124.02)

a. Inspection Scope (4 samples)

During the period October 18 through October 21, 2010, the inspectors performed the following activities to verify that the licensee was properly implementing operational, engineering, and administrative controls to maintain personnel exposure As Low As Reasonably Achievable (ALARA) for activities performed during routine operations. Implementation of these controls was reviewed against the criteria contained in 10 CFR 20, applicable industry standards, and the licensee's procedure.

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Inspection Planning

- The inspectors reviewed pertinent information regarding cumulative exposure history, current exposure trends, and ongoing activities. The inspectors reviewed the site's 3-year rolling average dose and compared the site's average with the industry's average.
- The inspectors reviewed Pilgrim's trend in collective exposure and the site's source term measurements.

Verification of Dose Estimates and Exposure Tracking Systems

- The inspectors verified that Pilgrim has established measures to track, trend, and set trigger points to prompt additional ALARA planning and controls.
- The inspectors performed an evaluation of Pilgrim's method of adjusting exposure estimates when unexpected changes occur.

b. Findings

No findings were identified.

4. **OTHER ACTIVITIES [OA]**

4OA1 Performance Indicator Verification (71151)

.1 Cornerstone: Mitigating Systems

a. Inspection Scope (2 samples)

The inspectors reviewed Performance Indicator (PI) data to determine the accuracy and completeness of the reported data. The review was accomplished by comparing reported PI data to confirmatory plant records and data available in plant logs, Condition Reports (CRs), Licensee Event Reports (LERs), and NRC inspection reports. The acceptance criteria used for the review was Nuclear Energy Institute (NEI) 99-02, Revision 6, "Regulatory Assessment Performance Indicator Guidelines." The documents reviewed during the inspection are listed in the Attachment. The following performance indicators were reviewed:

- Emergency AC Power System from the fourth quarter 2009, through the third quarter of 2010 [MS06]; and
- Cooling Water (Salt Service Water/Reactor Building Closed Cooling Water) from the fourth quarter 2009 through the third quarter of 2010 [MS10].

b. Findings

No findings were identified.

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.2 Cornerstone: Occupational/Public Radiation Safety

Occupational Exposure Control Effectiveness

a. Inspection Scope (1 sample)

The inspectors reviewed implementation of the licensee's Occupational Exposure Control Effectiveness Performance Indicator (PI) Program. Specifically, the inspector reviewed recent condition reports and associated documents for occurrences involving locked high radiation areas, very high radiation areas, and unplanned exposures against the criteria specified in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," to verify that all occurrences that met the NEI criteria were identified and reported as performance indicators. This inspection activity represents the completion of one sample relative to this inspection area; completing the annual inspection requirement.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Review of Items Entered into the Corrective Action Program (CAP)

a. Inspection Scope

The inspectors performed a screening of each item entered into Entergy's corrective action program. This review was accomplished by reviewing printouts of each CR, attending daily screening meetings and/or accessing Entergy's database. The purpose of this review was to identify conditions such as repetitive equipment failures or human performance issues that might warrant additional follow-up.

b. Findings

No findings were identified.

.2 Semi-Annual Review to Identify Trends

a. Inspection Scope (1 sample)

The inspectors performed a review of Entergy's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The review was focused on repetitive equipment and corrective maintenance issues, but also considered the results of daily inspector CAP item screening. The review included issues documented in CAP trend reports and the site CAP performance indicator data. The review focused on the six month period of July 2010, through December 2010, although the inspectors also evaluated previous trend results for CRs and observations from selected inspection samples from January 2010 through June 2010 which have been

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discussed previously in Pilgrim Integrated Inspection Report 2010003 (ML102100150). The documents reviewed during the inspection are listed in the Attachment.

b. Findings and Observations

No findings were identified. One low level trend discussed in Pilgrim Integrated Inspection Report 2010003 was reviewed and is discussed below.

Maintenance Rule Program

The inspectors reviewed CR-PNP-2009-4197 and CR-PNP-2010-2211, which were written to perform assessments of the Maintenance Rule Program (MRP) and the Maintenance Rule Functional Failure evaluation process. The inspectors performed additional Maintenance Rule inspection samples during the 3rd and 4th quarters of 2010, and identified fewer deficiencies in the MRP, the scoping of systems into the MRP, and in functional failure evaluation quality. In addition, the inspectors noted improved Maintenance Rule Committee oversight and discipline and ownership by engineers for their MRP products. Due to the identification of fewer deficiencies and because corrective actions to improve the MRP and Maintenance Rule Functional Failure evaluation quality at Pilgrim appear to have been effective, the inspectors consider this low level trend closed.

.3 Selected Issue Follow-up Inspection

a. Inspection Scope

An inspection was performed at the Entergy corporate office in Jackson, Mississippi on June 14 through 17, 2010, to review the circumstances surrounding missed quality control (QC) verification inspections documented in CR-HQN-2009-01184 and CR HQN 2010 00013. The issue involved QC verification inspections performed during construction-related activities which were required as part of the Entergy quality oversight and verification programs. The inspection was performed to determine if the licensee had taken corrective actions commensurate with the significance of the identified issues, and to assess the impact, if any, on the operability of plant equipment caused by the missed inspections. This inspection was conducted by inspectors from Regions I, II, and IV, as well as a Senior Program Engineer from the Quality and Vendor Branch of the Office of Nuclear Reactor Regulation (NRR). The inspection covered all NRC-licensed sites owned by Entergy Operations, Inc., including Arkansas Nuclear One, James A. Fitzpatrick, Grand Gulf Nuclear Station, Indian Point Units 2 and 3, Palisades Plant, Pilgrim Nuclear Power Station, River Bend Station, Vermont Yankee, and Waterford 3.

The inspectors reviewed root cause analyses documented in CR-HQN-2009-01184 and CR-HQN-2010-00013, and the results of the licensee's extent of condition reviews and plant impact assessments. The inspectors also independently assessed the potential impacts of the missed inspections on the operability of plant equipment by reviewing all of the examples identified by the licensee, and by independently reviewing completed modifications and work orders to identify additional examples. The inspectors also reviewed the corrective action database to assess reported equipment failures in order to assess whether the failure might have involved missed QC verification inspections.

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The inspectors assessed causal factors that may have contributed to missing QC verification inspections. This assessment included reviewing the Entergy Quality Assurance Program Manual (QAPM) requirements, changes made to the QAPM, and the level of agreement between the QAPM and its implementing procedures. Documents reviewed are listed in the attachment.

b. Findings

Background: The inspectors identified problems with the implementation of elements of the Quality Assurance (QA) Program that affected the fleet of Entergy Operations Inc., (hereafter referred to as "Entergy") nuclear power plants that are licensed by the NRC. While the plant organizations are NRC licensees, Entergy also has corporate groups which are not NRC licensees that are actively involved in some activities affecting sites, including program and procedure changes. Entergy adopted a business strategy of adopting standard programs and procedures at all fleet plants.

On October 30, 2009, the NRC discussed with Entergy the initial concerns about whether QC verification inspections were being performed consistently for the types of work that require that level of inspection. Both the non-licensed and licensed Entergy organizations responded with an appropriate review of the issues. Entergy's review of work documents that were potentially affected was extensive at each site. Entergy's total review examined over 320 Engineering Change documents and 2676 Work Orders. Of the 30 Work Orders identified to have QC verification inspection deficiencies affecting eight safety-related design changes, all 30 were determined by Entergy to have sufficient documentation to provide confidence that the equipment was installed correctly. Specific corrective actions were identified and implemented to ensure that QC verification inspections would be included in current and future work documents, including procedure enhancements.

The information provided to the NRC was used to perform a focused inspection in order to assess the impact of the missed verification inspections at each of the NRC-licensed facilities. The inspection documented below independently assessed the potential impact of missed QC verification inspections on the operability of plant equipment, as well as assessing details of QA Program for the Entergy fleet.

Two findings were identified during this inspection. These findings involved missed QC verification inspections at seven Entergy sites, and the assignment of individuals to the QA Manager position that did not meet the experience and qualification requirements at eight sites. Only the findings impacting Pilgrim are described below.

The inspectors concluded that the Entergy fleet organizational structure and Entergy strategy of adopting standardized procedures across the fleet were contributing factors to the findings. Specifically:

- Changes to adopt the standard fleet QA program created a partial conflict with existing requirements for worker qualifications at some sites. The process for creating and revising standardized fleet procedures and programs used to meet NRC requirements

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must ensure that site-specific regulatory requirements and commitments are properly addressed for all sites.

- Changes that removed details from existing site-specific QA and QC program implementing procedures while shifting to standardized fleet procedures contributed to the finding involving missed QC verification inspections. CRs at individual sites regarding problems related to this issue were not recognized collectively as symptoms of a problem with these procedures because they were addressed at the site level.

b.1 Failure to Perform Required Quality Control Inspections

Introduction: The inspectors identified a Green, NCV of 10 CFR 50, Appendix B, Criterion X, "Inspection," for the failure to ensure that Quality Control verification inspections were included in quality-affecting procedures and work instructions for construction-like work activities as required by the Quality Assurance Program.

Description: In response to the inspectors' request for information concerning implementation of the quality oversight and verification programs, the licensee performed a review of a representative sample of engineering changes and work order tasks issued between 2006 and 2009. The licensee's review included performing equipment walkdowns, evaluating rework rates and human error rates, and causes for failures of significant components. Based on the results of these reviews, Entergy initiated CRs at the various sites to document problems with Quality Control (QC) verification activities and failures to perform required QC reviews of safety-related engineering changes and construction related work activities. Entergy's investigation concluded that procedures contained inadequate guidance, which resulted in inconsistent implementation of the QC Program. Specifically, some safety-related design change work orders were not reviewed to determine whether QC verification inspections were required, and some safety-related design change work orders did not include all required QC verification inspections. These examples were documented in CR-HQN-2009-01083, -01084, -01085, -01093, -01096, -01140, -01169, -01170, -01184, and -01188.

Additional findings identified by Entergy's review included:

- Managers in maintenance organizations did not have a detailed understanding of QC responsibilities, required inspections, or what documents required review (CR HQN-2009-01150).
- A weakness was identified in the process for ensuring proper approval of contract QC inspection personnel at all Entergy sites. Procedure EN-QV-111, "Training and Certification of Inspection/verification and examination Personnel," Section 4.0 [1], required that the Manager responsible for Quality Assurance or designee at each location is responsible for approving ANSI N45.2.6 certification of QC inspection personnel. In practice, contract QC inspectors' qualifications were not approved by the QA Manager prior to November of 2009. This was determined to be a minor violation because the ANSI Level III inspector at each site was documenting that the contract QC personnel had the necessary qualifications to perform the inspections for which

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they were contracted. This issue was entered into the licensee's corrective action program as CR-HQN-2009-1091.

- At individual Entergy plants, 27 condition reports were written in 2008 and 2009 to document potentially missed QC verification inspections or missed reviews to consider QC verification inspections prior to the NRC engaging Entergy on this issue. Of those, seven were actual missed inspections (CR-RBS-2009-05041, CR-JAF-2008-03648, and CR-PNP-2008-00916 and CR-PNP-2008-03922, CR-PNP-2009-01798, CR-PNP-2009-02059, and CR-PNP-2009-02255). Multiple condition reports documented work package quality issues that impacted the ability to identify appropriate QC verification inspection requirements.
- Two examples of QC programmatic issues were identified, assigned by Entergy headquarters, and not properly addressed (CR-ANO-C-2009-01884, and CR-HQN-2009-00178). These were considered examples of the violation discussed below.
- River Bend Station was using notification points instead of designating specific QC hold points (CR-RBS-2008-04685).
- Insufficient resources were assigned or qualified to perform the required tasks at Grand Gulf Nuclear Station and River Bend Station. River Bend Station operated with a single QC Level II inspector for more than 3 years, and Grand Gulf Nuclear Station's two QC inspectors did not have all of the discipline certifications for which they were conducting inspections (CR-HQN-2009-01140 and CR GGN-2009-06575). While these conditions were inappropriate, the inspectors did not identify a separate violation associated with these issues. To the extent that the individuals at River Bend Station were evaluating work documents for QC verification inspections and not correctly identifying those verifications, those examples are part of the violation discussed below.
- Although equipment-related QC condition reports were addressed appropriately, QC programmatic issues were not always effectively addressed.
- QA audits and oversight activities for the QC Program missed opportunities to identify the findings of their investigation (CR-HQN-2009-01169, CR-HQN-2009-0153, and CR-HQN-2010-00013). In particular, the Entergy corporate ANSI Level III inspector was required to perform periodic surveillances of QC inspection activities to ensure the program is being adequately implemented and maintained, but these required surveillances were not performed in 2008 (CR-HQN-2009-00111). This is further discussed in Section 4OA7.

Subsequent to the identification of these deficiencies, Entergy initiated prompt corrective actions to ensure that appropriate safety-related, engineering changes and non-routine maintenance work orders were identified and routed to the Maintenance Inspection Coordinator for evaluation and inclusion of QC verification inspections in accordance with the revised requirements of procedure EN-WM-105, "Planning." These corrective actions

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and actions to preclude recurrence were collectively documented in the following Level A condition reports: CR-HQN 2009-01184, dated December 21, 2009, and CR-HQN-2010-0013, dated January 6, 2010.

In-office NRC reviews identified the need to conduct further inspection activities. On June 14 through 17, 2010, the inspectors conducted a focused review of work performed at each NRC-licensed Entergy site to assess whether examples of missed QC verification inspections identified by Entergy during their review had the potential to have impacted the operability of important plant equipment. The inspectors also reviewed the corrective action database and maintenance records to independently assess the rigor of the Entergy review and to identify additional examples of missed QC verification inspections. The inspectors identified no additional examples, and concluded that the Entergy reviews were sufficient to identify the scope of the problems and develop actions to address the causes.

The inspectors reviewed specific work items whose scope met QAPM requirements to have had QC verification inspections but did not have the appropriate inspections. Based in part on interviews with Entergy personnel, the inspectors determined that procedural guidance for work planning was not sufficiently detailed or clear to ensure that work packages with construction-like activities would be reviewed by the specified QC personnel. These individuals were responsible for designating the QC inspections that were required by the QAPM.

The inspectors also identified numerous CRs written at Entergy sites that documented improper implementation of QC verification inspections. Specific CRs are listed in the attachment.

Analysis: The failure to ensure that adequate Quality Control verification inspections were included in quality-affecting procedures and work instructions as required by the Quality Assurance Program was a performance deficiency. This programmatic deficiency, if left uncorrected, could lead to a more significant safety concern; in that, the failure to check quality attributes could involve an actual impact to plant equipment. This issue affected the Design Control attribute of the Mitigating Systems cornerstone because missed quality control inspections during plant modifications could impact the availability, reliability, and capability of systems needed to respond to initiating events. This performance deficiency was determined to have very low safety significance since it was confirmed to involve a qualification deficiency that did not result in a loss of operability or functionality. Specifically, inspectors verified by sampling that work documents provided objective quality evidence that work activities that had missed quality control verifications were properly performed.

The inspectors determined that this issue had a cross-cutting aspect in the Human Performance cross-cutting area, Decision-Making component, because the licensee did not have an effective systematic process for obtaining interdisciplinary reviews of proposed work instructions to determine whether Quality Control verification inspections were appropriate [H.1(a)].

Enforcement: 10 CFR Part 50, Appendix B, Criterion X, "Inspection," requires, in part, that, "Examinations, measurements, or tests of material... shall be performed for each

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work operation where necessary to assure quality . If mandatory inspection hold points, which require witnessing or inspecting by the licensee's designated representative and beyond which work shall not proceed without the consent of the designated representative are required, the specific hold points shall be indicated in appropriate documents."

Entergy's QAPM, Revision 20, Section B.12, "Inspection," requires, in part, that, "Provisions to ensure inspection planning is properly accomplished are to be established. Planning activities are to identify the characteristics and activities to be inspected, the inspection techniques, the acceptance criteria, and the organization responsible for performing the inspection. Provisions to identify inspection hold points, beyond which work is not to proceed without consent of the inspection organization, are to be defined."

Contrary to the above, from February 2006, to December 2009, the licensee failed to ensure that examinations, measurements, or tests of material were performed for each work operation where necessary to assure quality, and failed to include mandatory inspection hold points in appropriate documents. Specifically, multiple examples of Maintenance Work Orders and Engineering Change documents for construction-related activities involving safety-related systems structures and components were identified where witnessing or inspections were required to be performed to ensure quality, but these steps were not identified, included in the work documents, or performed as required QC hold points in the work instructions. Condition reports documenting the specific problems and examples of the violation included:

CR-PNP-2009-05359;
 CR-HQN-2009-01083;
 CR-HQN-2009-01084;
 CR-HQN-2009-01085;
 CR-HQN-2009-01093;
 CR-HQN-2009-01096;
 CR-HQN-2009-01140;
 CR-HQN-2009-01169;
 CR-HQN-2009-01170;
 CR-HQN-2009-01184; and
 CR-HQN-2009-01188.

Because this issue was of very low safety significance and was entered into the CAP as CR-HQN 2009-01184 and CR-HQN-2010-0013, this violation is being treated as an NCV, consistent with Section 2.3.2.a of the NRC's Enforcement Policy (**NCV 05000293/2010005-02, Failure to Perform Required Quality Control Inspections**).

b.2. Failure to Implement the Experience and Qualification Requirements Associated With the Quality Assurance Program

Introduction: The inspectors identified a Green NCV violation of 10 CFR 50, Appendix B, Criterion II, "Quality Assurance Program," for the failure to implement the experience and qualification requirements of the Quality Assurance Program. As a result, the licensee failed to ensure that an individual assigned to the position of Quality Assurance Manager

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met the qualification and experience requirements of ANSI/ANS 3.1-1978 as required by the Quality Assurance Program.

Description: During their review of the issues surrounding the improper implementation of quality control (QC) verifications discussed above, the inspectors noted that the root cause analysis documented in CR-HQN-2010-0013 identified that lack of experience of the Quality Assurance (QA) Manager contributed to the failure to identify the trend in missed QC verification inspections. The inspectors reviewed the relevant experience and qualifications of the QA Manager at each Entergy site. The inspectors also reviewed the NRC's safety evaluation report that approved Entergy's original corporate Quality Assurance Program Manual (QAPM), which is the document that contains the QA Program. Additionally, the inspectors reviewed the administrative section of the Technical Specifications for all the Entergy sites and a sample of evaluations, performed in accordance with 10 CFR 50.54(a), that supported Entergy QAPM changes and alignment of plants that were subsequently purchased by Entergy.

The Entergy corporate QAPM required each site to meet the experience and qualification standards in ANSI/ANS 3.1-1978, "American National Standard for Selection and Training of Nuclear Power Plant Personnel." Section 4.4 included qualification and experience requirements for the personnel described as "group leaders" of five professional-technical groups, including Quality Assurance. Section 4.4.5, "Quality Assurance," required that "...the responsible person shall have six years experience in the field of quality assurance, preferably at an operating nuclear plant, or operations supervisory experience. At least one year of this six years experience shall be nuclear power plant experience in the overall implementation of the quality assurance program. (This experience shall be obtained within the quality assurance organization)."

On December 15, 2008, procedure EN-QV-117, "Oversight Training Program," the Entergy procedure used by all Entergy sites to implement the requirements of ANSI/ANS 3.1-1978, was revised by the Entergy corporate QA group. Section 5.7, "Manager/QA Senior Auditor Training," was changed to state:

Either the QA Manager or the Senior QA Auditor will meet the requirements of ANSI 3.1-1978 paragraph 4.4.5 for operating plants and if applicable ANSI 3.1-1993 paragraph 4.3.7 for new plants.

The inspectors reviewed completed Personnel Change Planning Checklist/Forms for QA Managers at each site. Entergy used this form to evaluate QA Manager candidates prior to the implementation of an Entergy fleet-wide restructuring in July 2007. Attachment 8, "Change Management Guidelines for Alignment Implementation," included the following conclusion for the individual that subsequently was assigned to be the QA Manager:

[Individual's name redacted] meets the minimum requirements for QA Manager with the exception of at least one year of this six years experience shall be nuclear power plant experience in the overall implementation of the quality assurance program. This requirement must be met by the QA Senior Auditor.

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Based on discussions with Entergy corporate QA personnel, the inspectors determined that Entergy personnel had interpreted ANSI/ANS 3.1-1978, Sections 4.4 and 4.4.5 to allow the Senior Auditor to be considered the QA group leader described in the standard for purposes of meeting the experience requirements of Section 4.4.5 in cases where a candidate for the position of QA Manager did not satisfy the experience requirements.

In reviewing this issue, the NRC staff has determined that the group leader in this case is the individual filling the position assigned responsibility for overall implementation of the QA Program (Entergy used the title "QA Manager" for this position). The individual meeting the experience and qualification requirements must be the individual assigned the responsibilities for overall implementation of the QA Program assigned within the QA Program.

The inspectors determined that this change to procedure EN-QV-117 did not ensure that the qualifications for the QA Manager would meet the requirements of standard. The inspectors identified an example where the Senior Auditor was credited as being the group leader for purposes of meeting ANSI/ANS 3.1-1978, and the individual who was assigned as the QA Manager did not meet the ANSI/ANS 3.1-1978 experience requirements. The team also determined that the responsibilities assigned to the QA Manager under the QAPM were not reassigned to the Senior Auditor, and the Senior Auditor did not report directly to the designated senior executive. The Senior Auditor continued to report to the QA Manager, so the person with the greater experience did not have the positional authority to decide issues.

Analysis: The failure to ensure that an individual assigned to the position of Quality Assurance Manager met the qualification and experience requirements of ANSI/ANS 3.1-1978 as required by the Quality Assurance Program was a performance deficiency. This performance deficiency was determined to be more than minor because, if left uncorrected, it could create a more significant safety concern. Failure to have a fully qualified individual providing overall oversight to the QA Program had the potential to affect all cornerstones, but this finding will be tracked under the Mitigating Systems cornerstone as the area most likely to be impacted. The issue was not suitable for quantitative significance determination, so it was assessed using IMC 0609, Appendix M, and was evaluated using the qualitative criteria listed in Table 4.1. This finding was determined to be of very low safety significance because other quality assurance program functions remained unaffected by this performance deficiency, so defense-in-depth continued to exist. The inspectors determined that there was no cross-cutting aspect associated with this finding because this issue was not indicative of current performance as it occurred more than three years ago.

Enforcement: Appendix B to 10 CFR 50, Criterion II, "Quality Assurance Program," requires, in part, that the licensee establish a quality assurance program which complies with Appendix B. This program shall be documented by written policies, procedures, or instructions and shall be carried out throughout plant life in accordance with those policies, procedures, or instructions. The program shall provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained.

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The Entergy Quality Assurance Program Manual, Revision 13, is the document used at each Entergy-owned site to describe the quality assurance program. Table 1, Section A of the Quality Assurance Program Manual states, in part, that qualifications and experience for station personnel shall meet ANSI/ANS 3.1-1978 except for positions where an exception to either ANSI/ANS 3.1-1978 or N18.1-1971 is stated in the applicable unit's Technical Specifications.

ANSI/ANS 3.1-1978, Section 4.4.5, "Quality Assurance," states, in part, that the responsible person (i.e. the Quality Assurance Manager) shall have six years experience in the field of quality assurance. At least one year of this six years experience shall be obtained within the quality assurance organization.

Contrary to the above, between February 22 and June 30, 2010, the licensee failed to implement the quality assurance program requirements intended to provide indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency was achieved and maintained. Specifically, the individual assigned to be the responsible person for the licensee's overall implementation of the Quality Assurance Program did not have at least one year of nuclear plant experience in the overall implementation of the Quality Assurance Program within the quality assurance organization prior to assuming those responsibilities. Because this issue was of very low safety significance and was entered into the CAP as CR-HQN-2010-00386, this violation is being treated as an NCV consistent with Section 2.3.2.a of the NRC's Enforcement Policy. **(NCV 05000293/2010005-03, Failure to Implement the Experience and Qualification Requirements of the Quality Assurance Program).**

4OA5 Other Activities

Institute of Nuclear Power Operations (INPO) and World Association of Nuclear Operators (WANO) Plant Assessment Report Review

a. Inspection Scope

The inspectors reviewed the report for the INPO/WANO plant assessment of the Pilgrim Nuclear Power Station conducted in December 2010. The inspectors reviewed the report to ensure that issues identified were consistent with the NRC perspectives of licensee performance and to verify if any significant safety issues were identified that required further NRC follow-up.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On October 21, 2010, a Radiation Safety exit meeting was conducted with Mr. Stephen Bethay and other members of the Pilgrim staff. The inspectors confirmed that no proprietary information was provided during the inspection.

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On January 5, 2011, the resident inspectors conducted an exit meeting and presented the preliminary inspection results to Mr. Robert Smith, and other members of the Pilgrim staff. The inspectors confirmed that proprietary information provided or examined during the inspection was controlled and/or returned to Entergy, and the content of this report includes no proprietary information.

On January 10, 2011, the inspector presented the results of the Selected Issue Follow-up Inspection of quality assurance and quality control issues to Mr. T. White, Manager, Quality Assurance, and other members of the Pilgrim staff. The inspectors confirmed that no proprietary information was provided during the inspection.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements, which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as an NCV.

Procedure, EN-QV-111, "Training and Certification of Inspection/Verification and Examination Personnel," Section 4.0 [4](i), requires that the Entergy corporate ANSI Level III inspector shall perform periodic (annual) surveillances of quality control inspection activities to ensure that the program is being adequately implemented and maintained. Contrary to the above, no surveillances of quality control inspection activities were performed for any Entergy site during calendar year 2008. The issue was not suitable for quantitative significance determination, so it was assessed using IMC 0609, Appendix M, and was evaluated using the qualitative criteria listed in Table 4.1. This finding was determined to be of very low safety significance because other quality assurance program functions remained unaffected by this performance deficiency, so defense-in-depth continued to exist. This issue was entered into the licensee's CAP as CR-HQN-2009-00111.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Entergy personnel:

S. Bethay	Director, Nuclear Safety Assurance
B. Chenard	System Engineering Manager
V. Fallacara	Engineering Director
W. Lobo	Licensing Engineer
J. Lynch	Licensing Manager
J. Macdonald	Assistant Operations Manager-Shift
T. McElhinney	Chemistry Manager
D. Noyes	Operations Manager
J. Priest	Radiation Protection Manager
J. Scheffer	Chemistry Supervisor
K. Sejkora	Staff Chemist
R. Smith	Site Vice President
J. Taormina	Maintenance Manager

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened and Closed

NCV 05000293/2010005-01	Failure to Manage a Yellow Risk Condition During HPCI Testing from the Alternate Shutdown Panel (Section 1R13)
NCV 05000293/2010005-02	Failure to Perform Required Quality Control Inspections (Sections 4OA2)
NCV 05000293/2010005-03	Failure to Implement the Experience and Qualification Requirements of the Quality Assurance Program (Section 4OA2)

LIST OF DOCUMENTS REVIEWED

Section 1R04

Procedure 2.2.8, Revision 96, Standby AC Power System (Diesel Generators)
CR-PNP-2010-3735, 'A' EDG Jacket Water Temperature Switch Defective
CR-PNP-2010-3744, 'A' EDG Ventilation Damper VD-2-8 failed in open position procedure
Procedure 2.1.12.1, Attachment 1, Revision 72, Emergency Diesel Generator Surveillance
Procedure 2.2.79, Revision 39, Reactor Protection System
Training Manual Diagrams of RPS

Section 1R05

Procedure 5.5.2, Revision 46, Special Fire Procedure
Fire Hazards Analysis, Fire Zone Data Sheet for the 'A' Residual Heat Removal Pipe Room
Fire Hazards Analysis, Fire Area 1.10, Fire Zone 4.1, 'B' Train Emergency Diesel
Generator Room
CR-PNP-2010-03987, Senior NRC Resident found a hose station typographical error in the
Fire Hazards Analysis
Fire Hazards Analysis, Fire Area 1.9, Fire Zone 3.5, Vital Motor Generator Set Room
CR-PNP-2010-3948, Rolling Fire Door in lower switchgear room did not close completely
CR-PNP-2010, 4001, hourly fire watch sheet date was wrong in lower switchgear room
Procedure 8.B.14, Revision 44, Fire Protection Technical Requirements
Procedure 8.B.17.1, Revision 20, Inspection of Fire Door Assemblies
Fire Hazards Analysis, Fire Area 1.10, Fire Zone 2.1, 'B' Switchgear and Load Center Room
Fire Hazards Analysis, Fire Area 1.10, Fire Zone 2.11A, Turbine Deck-West End

Section 1R11

LORT/NRC Simulator Exam Scenario, SES-2010-06, Revision 0, Loss of Feedwater Heating
with Fuel Damage accompanied by RWCU leak
LORT/NRC Simulator Exam Scenario, SES-2010-04, Revision 0, small LOCA during
station blackout

Section 1R12

NUMARC 93-01, Revision 2, industry guideline for monitoring the effectiveness of maintenance
at nuclear power plants
Procedure EN-DC-150, Revision O, Condition Monitoring of Maintenance Rule Structures
CR-PNP-2010-3696, main breakwater stones are missing
Maintenance Rule SSC Basis Document, Buildings and Structures
CR-PNP-2010-4167, unclarity in maintenance rule decisions regarding structures category
Post Accident Sampling System Maintenance Rule (a)(1) Action Plan
Post Accident Sampling System Maintenance Rule SSC Basis Document
UFSAR Chapter 10.19, Post Accident Sampling System
EC23680, Evaluation of PASS Heat Trace Circuits Required for System Operation
CR-PNP-2008-2120, PASS has been declared potentially maintenance rule (a)(1)
due to recurring heat trace problems

EC12377, Replace H202 and PASS Health Trace System Temperature Controllers
Post Accident Sampling System Drawings
Post Accident Sampling System Heat Report

Section 1R13

Operator's Risk Report for 10/27/10-10/29/10
Equipment Out-of-Service (EOOS) Tool
Procedure EN-DC-151, Revision 1, PSA Update and Maintenance
CR-PNP-2010-3860, Uncertainty with the Diesel Fire Pump being out-of-service with the VEX-101 OOS
CR-PNP-2010-0388, VEX-101 OOS raises the question of Diesel Fire Pump Availability
Operator's Risk Report for 11/1/10-11/2/10
NUMARC 93-01, Revision 2, Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants
Procedure 1.5.22, Revision 12, Risk Assessment Process
Procedure 2.4.143, Revision 45, Shutdown from outside control room
Procedure 8.5.4.6, Revision 38, HPCI Pump and Valve Operability from alternate shutdown panel

Section 1R15

CR-PNP-2010-3551, Transfer Switch Y-10 acting sluggishly when transferring back to normal power supply
CR-PNP-2010-3735, 'A' EDG Jacket Water Temperature Switch found defective and associated operability evaluation
CR-PNP-2010-3561, 'A' EDG Jacket Water Temperature found out-of-specification
Procedure 2.1.35, Revision 51, daily rounds (EDG Room Temperature Portion) and control room readings
EN-OP-104, Revision 4, Operability Determination Process
CR-PNP-2010-3696, Main Breakwater Stones are missing in previously identified area and associated operability evaluation
CR-PNP-2007-2691, Main Breakwater Stones are missing
Boston Edison Letter #79-199, to NRC, dated September 28, 1979
CR-PNP-2010-383, RHR / FPC Supports Degraded and Non-Function
CR-PNP-2010-3621, RHR Drawing indicates FPC pipe as non-Q versus safety-related
CR-PNP-2010-3939, Drain Valve of Moisture Separator Drain Tank not maintaining normal level
Operational Decision Making Issue (ODMI) Implementation Action Plan dated 11/5/2010

Section 1R19

Work Order (WO) #00245032, Tasks 1&2, 8.Q.3.8.1, MOV Maintenance and Inspection (MO-1301-26)
CR-PNP-2010-3479, Discovered Strain Gauge off of MO-1301-26
WO#52246521, Tasks 1&2, Stem Lube for Reactor Core Isolation Cooling (RCIC) Valves and Post Maintenance Test
Procedure 8.Q.3-8.1, Revision 15, Limitorque Type HBC, SB/SMB-00, and type SMB-000 Valve Operator Maintenance
WO#52186868, Tasks 1-4, Line 342 CCVT Inspection and Testing

WO#52186868, Task 6, Line 342 CCVT Post Maintenance Test
WO#52186868, Tasks 7-10, Installation of New CCVT for Line 342 and Post Maintenance Test
WO#255378, Tasks 13 and 4 received spurious half scrams from RPS Channel 'B'
WO#255378, Task 5, Post Maintenance Test of 'B' RPS
WO#0024610601, X-107A, Replace Start Button in Panel C-103B, 'A' EDG iaw 3.M.3-51
WO#5229362501, Train 'A' Emergency Diesel Generator Surveillance
WO#00247107, Procedure 8.F.38.1, Diesel Generator Instrumental Calibration and Function Test
CR-PNP-2010-4293, Time delays found outside procedure limits
CR-PNP-2010-4313, Air Start Motor Position M2 used during testing
WO#00181369, Replace VSF-206B
EC-20051, Revision 0, Replace Main Stack Dilution Fans
CR-PNP-2010-4072, VSF206A tripped during VSF206B replacement
ECT-20051-01, Revision 0, functional test for VSF-206B
Procedure 3.M.3-51, Revision 27, Electrical Termination Procedure
Procedure 3.M.3-4, Revision 55, Insulation Test
Procedure 3.M.4-14, Revision 39, Rotation Equipment Inspection Assembly and Disassembly

Section 1R22

WO#52287476, Task 1, 8.9.1 (TS Surveillance) EDG Train A Surveillance
Procedure 8.9.1, Revision 116, Emergency Diesel Generator and Associated Emergency
Bus Surveillance
Technical Specifications
CR-PNP-2010-3896, Timer TMR1-45009, did not stop to indicate EDG start time
Control Room Logs for 11/2/10
Procedure 1.3.34, Revision 117, Operations Administrative Policies and Processes,
Section 6.10, Pre-Evolution Briefings
Procedure 8.5.2.2.2, Revision 43, LPCI System LOOP B Operability-Pump Quarterly and
Biennial Flow Rate Tests and Valve Tests
WO#52278449, Task 1, Perform HPCI Operability Test at 1000psig
Procedure 8.5.4.1, Revision 106, High Pressure Coolant Injection (HPCI) System Pump
and Valve Quarterly Operability
Procedure 9.39, Revision 0, Channel Control Blade Interference Testing
ECH-NE-09-0056, Revision 1, PNPS Cycle 18 Channel-Control Blade Interference
Monitoring Plan
CR-PNP-2010-3635, Control Rod 46-39 did not meet acceptance criteria for settle time
CR-PNP-2010-4229, Control Rod 06-39 shows indication of channel control blade interference
CR-PNP-2010-4230, unable to perform full stroke insertion testing on control rods 06-39 and
46-39
Procedure 8.5.1.1, Revision 55, Core Spray System Operability-Pump Quarterly and
Biennial Comprehensive Flow Rate Tests and Valve Tests
CR-PNP-2010-3815, Suction Pressures were inconsistent during 'B' Core Spray Pump
Operability Test
Control Room Logs dated 10/28/2010
CR-PNP-2010-4479, Resident Inspector concerns regarding the conduct of the 'B' Core
Spray Pump Surveillance on 10/28/2010

Section 2RS01

EN-RP-101, Revision 5, Access Control for Radiological Controlled Areas
EN-RP-108, Revision 9, Radiation Protection Posting
EN-RP-121, Revision 6, Radioactive Material Control
EN-RP-131, Revision 8, Air Sampling
CR-2009-04266
CR-2010-01474
CR-2009-04427
CR-2010-01541
CR-2009-04480
CR-2010-01775
CR-2010-01810
CR-2010-01761
CR-2009-04655
CR-2009-04809
CR-2009-04925
CR-2009-05298
CR-2010-00358
CR-2010-00666
CR-2010-00819
CR-2010-00923
CR-2010-00940
CR-2010-00974
CR-2010-00979

Section 2RS02

EN-RP-110, ALARA Program, Revision 7

Section 4OA1

NEI 99-02, Revision 6, Regulatory Assessment Performance Indicator Guidelines
Emergency Diesel Generator System Health Report, 2010 3rd quarter
CR-PNP-2010-3357, 'B' EDG Cooling Air Damper Pressure Regulator Failed
NRC Performance Indicator Technique / Data Sheets generated 4th quarter 2009 through 3rd quarter 2010
Licensee Event Reports issued 4th quarter 2009 through 3rd quarter 2010
CR-PNP-2010-3682, during a review of MSPI data, the NRC Sr. Resident Inspector questioned the validity of the method used to account for EDG short term unavailability
MSPI Data Sheets for Cooling Water for both Reactor Building Closed Cooling Water (RBCCW) and Salt Service Water (SSW)

Section 4OA2

Miscellaneous

CR-PNP-2009-4197, Gaps to Excellence in the Implementation of the Maintenance Rule
CR-PNP-2010-2211, Inconsistent Implementation of the Maintenance Rule Function Failure Determination Process

Pilgrim Station Quarterly Trend Reports

CR-PNP-2010-4479, Resident Inspector concerns regarding the conduct of the 'B' Core
Spray Pump Surveillance on 10/28/2010

EN-OP-104, Revision 4, Operability Determination Process

CR-PNP-2010-3815, Suction Pressures were inconsistent during 'B' Core Spray Pump
Operability Test

EOI Letter ENOC-10-00002	Response to Request for Information, Revision 1	1/8/10
EOI Letter ENOC-09-00037	Response to Request for Information	11/30/10
QAPM Regulatory Guide 1.8	Entergy Quality Assurance Program Manual Personnel Selection and Training	0 through 20 1
ANSI/ANS 3.1- 1978	American National Standard for Selection and Training of Nuclear Power Plant Personnel	1978
ANSI N18.1- 1971	American National Standard for Selection and Training of Nuclear Power Plant Personnel	1971
NRC SER	NRC Safety Evaluation Report, "Entergy Operations, Inc. Quality Assurance Program Consolidation"	11/6/98
Technical Specification	Unit Staff Qualifications	various
5.3.1	Personnel Change Planning Checklist/Forms for QA Manager Candidates	July 2007
CEO2009-00195	Corporate ANSI Level III Surveillance of VY Maintenance Inspection Program (VTY)	12/15/2009
EOI Letter BVY 03-12	Vermont Yankee Nuclear Power Station, Docket No. 50-271 Annual Submittal of QAP Changes (VTY)	02/05/2003
CIN-2003/00059	Vermont Yankee, 10 CFR Part 50.54(a)(3) Change Review	04/24/2002
EOI Letter No. CNRO-2003-013	Forms for QAPM	Rev 8 (VTY)
EOI Letter No. CEXO-2003/164	Entergy Quality Assurance Program Manual, Rev. 8 (VTY)	04/24/2003
EOI Letter NO. CNRO-2002/027	Issuance of Entergy Quality Assurance Program Manual (QAPM) Revision 8 (VTY)	04/24/2003

Attachment

10 CFR 50.59 Review Form	Entergy Quality Assurance Program Manual, Revision 7 (PNPS)	04/25/2002
ENO Letter No. 1.2.02-067	Entergy QA Program Manual, Revision 7 (PNPS)	05/02/2002
EN-QV-104 Attachment 9.1	Entergy QA Program Manual, Revision 7 (PNPS) Independent Spent Fuel Storage Installation	07/30/2002
ENOC Letter NO. 07-0020	Entergy QA Program Manual Change Review Form 50.54(a) Parts 1,2 and 3 (PLP)	04.05/2007
AP-20.06, Attachment 1	Entergy QA Program Manual, Revision 16, Annual Report 10 CFR 50.54(a)(3) and 10 CFR 72.140(d) (PLP)	04/15/2007
MCM-4.1 Attachment 4.1	FSAR Change Request Form, Relocate QA Program from Chapter 17 to Entergy QAPM (JAF)	05/06/2002
AP-20.09 Attachment 1	Nuclear Engineering 10 CFR 50.59 Screening Form (JAF)	04/03/2002
Entergy Letter JLIC-02-017	Process Applicability Screening – Relocate QA Program From FSAR Ch. 17 to Entergy QAPM (JAF)	04/01/2002
ENO Letter 1.2.02-060	Cross Reference of QAPM commitments to Implementing procedures at JAF	04/02/2002
Entergy Letter CNRO-2002-027	Adaptation of Entergy Common QAPM, Revision 7 (JAF)	06/21/2002
10 CFR 50.54(a) Evaluation	Entergy QA Program Manual, Revision 7 (JAF)	04/25/2002
ENO Letter 1.2.02-060	QA Program Change/Prior Approval Determination - Part A (IP3)	05/06/2002
ENO Meeting Summary	Adaptation of Entergy Common QAPM, Revision 7, (IP2 and IP3)	06/21/2002
	Development of Common QA Manual for northern Entergy Sites and Entergy Nuclear Generating Company Plants	11/30/2001
<u>Engineering Changes/Maintenance Work Orders</u>		
ANO-EC-07032 05885	RBS-EC-00893	RBS-EC-70734
ANO-EC-02886 09121	RBS-EC-02692	GGN-EC-00085
		GGN-EC-01450
		GGN-EC-01452
		PLP-EC-
		PLP-EC-

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ANO-EC-03069 12392	RBS-EC-03275	GGN-EC-00224	GGN-EC-02048	PLP-EC-
ANO-EC-04461 14181	RBS-EC-03643	GGN-EC-02048	GGN-EC-02065	PLP-EC-
ANO-EC-08043 18042	RBS-EC-03850	GGN-EC-02058	GGN-EC-13326	PLP-EC-
ANO-EC-00608 06553	RBS-EC-03275	GGN-EC-02065	GGN-EC-13354	PLP-EC-
WF3-EC-15451 12731	RBS-EC-05932	GGN-EC-02107	GGN-EC-13355	PLP-EC-
WF3-EC-10706	RBS-EC-06947	GGN-EC-02110	ANO U-1 EC 01039	
WF3-EC-01830	RBS-EC-07239	GGN-EC-02201	ANO U-1 EC 05808	
WF3-EC-07960	RBS-EC-08504	GGN-EC-02784	ANO U-1 EC 13153	
WF3-EC-01166	RBS-EC-12204	GGN-EC-04538	ANO U-1 EC 00380	
WF3-EC-09046	RBS-EC-13128	GGN-EC-06299	ANO U-1 EC 05054	
WF3-EC-00935	RBS-EC-16451	GGN-EC-06301	ANO U-1 EC 05388	
WF3-EC-01166	RBS-EC-70752	GGN-EC-07471	ANO U-1 EC 06241	
WF3-EC-01396	RBS-EC-07368	GGN-EC-07716	ANO U-1 EC 07032	
WF3-EC-01782	RBS-EC-03852	GGN-EC-06875	ANO U-1 EC 13224	
WF30EC-03013	RBS-EC-03853	GGN-EC-06039	WF3-EC-844881	
WF3-EC-11284	RBS-EC-03975	GGN-EC-06086	WF3-EC-05854	
WF3-EC-13981	RBS-EC-70733	GGN-EC-00494	VYT-EC-03138	

Procedures

EN-LI-121	Entergy Trending Process	Rev 8
EN-MA-102	Inspection Program	Rev 3 and 4
EN-QV-100	Conduct of Nuclear Oversight	Rev 4
EN-QV-109	Audit Process	Rev 16
EN-QV-109-02	Audit Process Guidance	Rev 0
EN-QV-111	Training and Certification of Inspection/Verification and Examination Personnel	Rev 8
EN-QV-117	Oversight Training Program	Rev 9
EN-QV-119	Corrective Action Requests, Supplier Stop Work Orders, and Recommendations	Rev 6
EN-QV-123	Supplier Audits/Surveys	Rev 3
EN-QV-128	Assessments of Nuclear Oversight?	Rev 2
EN-QV-129	Vulnerability Review Process	Rev 1

CONDITION REPORTS

CR-ANO-1-2009-02330	CR-ANO-2010-01503	CR-ANO-1-2010-00743
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CR-ANO-C-2009-01884	CR-ANO-1-2010-01724	CR-ANO-1-2010-01080
CR-ANO-C-2009-02608	CR-ANO-1-2010-01182	CR-ANO-1-2010-00719
CR-ANO-2-2010-00028		
CR-JAF-2008-03648	CR-JAF-2009-04592	CR-JAF-2010-03280
CR-HQN-2010-00111	CR-HQN-2009-01188	CR-HQN-2010-00415
CR-HQN-2009-00178	CR-HQN-2009-01197	CR-HQN-2010-00333
CR-HQN-2009-01083	CR-HQN-2010-00013	CR-HQN-2010-00123
CR-HQN-2009-01084	CR-HQN-2010-00386	CR-HQN-2010-00109
CR-HQN-2009-01085	CR-HQN-2010-00571	CR-HQN-2010-00068
CR-HQN-2009-01091	CR-HQN-2010-00593	CR-HQN-2010-00063
CR-HQN-2009-01093	CR-HQN-2010-00515	CR-HQN-2010-00045
CR-HQN-2009-01096	CR-HQN-2010-00550	CR-HQN-2010-00060
CR-HQN-2009-01140	CR-HQN-2010-00511	CR-HQN-2009-01198
CR-HQN-2009-01150	CR-HQN-2010-00510	CR-HQN-2009-01194
CR-HQN-2009-01169	CR-HQN-2010-00475	CR-HQN-2010-00594
CR-HQN-2009-01170	CR-HQN-2010-00499	CR-HQN-2009-01171
CR-HQN-2009-01184	CR-HQN-2010-00338	CR-HQN-2009-01153
CR-IP2-2010-04085	CR-IP3-2009-04917	CR-IP2-2009-05393
CR-IP3-2010-01740	CR-IP3-2009-04920	CR-IP2-2009-05399
CR-IP2-2010-03985	CR-IP3-2009-04897	CR-IP2-2009-05400
CR-IP2-2010-03986	CR-IP2-2009-05404	CR-IP2-2009-05389
CR-IP2-2010-03988	CR-IP2-2009-05409	CR-IP2-2009-05349
CR-IP2-2010-03984	CR-IP3-2009-04868	CR-IP2-2009-05348
CR-IP3-2009-04903	CR-IP3-2009-04883	CR-IP2-2009-05321
CR-IP3-2009-04905	CR-IP3-2009-04884	
CR-PLP-2009-04108	CR-PLP-2010-02288	CR-PLP-2009-05909
CR-PLP-2009-05613	CR-PLP-2010-02290	CR-PLP-2010-02012
CR-PLP-2009-05918	CR-PLP-2009-05942	CR-PLP-2009-05897
CR-PLP-2009-05908		
CR-PNP-2009-01798	CR-PNP-2008-03922	CR-PNP-2009-05303
CR-PNP-2009-02059	CR-PNP-2009-05359	CR-PNP-2009-05297
CR-PNP-2009-02255	CR-PNP-2010-00015	CR-PNP-2010-02124
CR-PNP-2008-00916		
CR-RBS-2008-04685	CR-RBS-2010-01472	CR-RBS-2010-00006
CR-RBS-2009-05041	CR-RBS-2010-02033	CR-RBS-2009-06472
CR-RBS-2009-06123	CR-RBS-2010-00200	CR-RBS-2009-06495

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CR-RBS-2009-06446
CR-RBS-2009-06451
CR-RBS-2009-06471
CR-RBS-2009-06473
CR-RBS-2009-06490
CR-RBS-2010-00044

CR-RBS-2010-00221
CR-RBS-2010-00278
CR-RBS-2010-00088
CR-RBS-2010-00011
CR-RBS-2009-06520
CR-RBS-2009-06539

CR-RBS-2009-06456
CR-RBS-2009-06450
CR-RBS-2009-06452
CR-RBS-2009-06158
CR-RBS-2009-06209
CR-RBS-2009-06449

CR-WF3-2010-01198
CR-WF3-2010-01356
CR-WF3-2010-00746

CR-WF3-2010-00284
CR-WF3-2009-07713

CR-WF3-2009-07711
CR-WF3-2010-02629

CR-VTY-2009-04496
CR-VTY-2010-01479
CR-VTY-2010-02759

CR-VTY-2010-04432
CR-VTY-2010-04434

CR-VTY-2010-04496
CR-VTY-2010-00070

CR-GGN-2010-04140
CR-GGN-2010-02730
CR-GGN-2010-04178
CR-GGN-2010-04101
CR-GGN-2010-04092
CR-GGN-2010-03674
CR-GGN-2010-03721
CR-GGN-2010-03900
CR-GGN-2010-03451
CR-GGN-2010-03492

CR-GGN-2010-02135
CR-GGN-2010-02382
CR-GGN-2010-02902
CR-GGN-2010-00590
CR-GGN-2010-01247
CR-GGN-2010-01252
CR-GGN-2009-06575
CR-GGS-2009-06907
CR-GGS-2009-06920

CR-GGS-2009-06921
CR-GGS-2009-06922
CR-GGS-2009-06923
CR-GGS-2009-06927
CR-GGS-2009-06806
CR-GGN-2010-00164
CR-GGN-2009-06904
CR-GGN-2009-06910
CR-GGN-2009-06505

CR-ANO-1-2009-02330

CR-ANO-2010-01503

CR-ANO-1-2010-00743

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
ALARA	As Low As Reasonably Achievable
ASP	Alternate Shutdown Panel
CFR	Code of Federal Regulations
CR	Condition Report
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EDG	Emergency Diesel Generator
HPCI	High Pressure Coolant Injection
IMC	Inspection Manual Chapter
MRP	Maintenance Rule Program
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PI	Performance Indicator
PNPS	Pilgrim Nuclear Power Station
RP	Radiation Protection
RPM	Radiation Protection Manager
RPS	Reactor Protection System
RWP's	Radiation Work Permit(s)
SSC	Structure, System or Component
TIP	Traversing In-Core Probe
VHRA	Very High Radiation Area
WO	Work Order